



US 20040164968A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0164968 A1****Miyamoto**(43) **Pub. Date: Aug. 26, 2004**(54) **FINGERTIP TACTILE-SENSE INPUT
DEVICE AND PERSONAL DIGITAL
ASSISTANT USING IT**(30) **Foreign Application Priority Data**

Aug. 16, 2002 (JP) 2002-237697

Aug. 23, 2001 (JP) 2001-252353

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ORLANDO, FL 32810**(51) **Int. Cl.⁷ G09G 5/00**(52) **U.S. Cl. 345/173**(57) **ABSTRACT**

A fingertip tactile sense input device for a personal digital assistant capable of various input operations produced by a moving fingertip over projections recognized by the fingertip tactile sense. An input plate has a plurality of fingertip input projections and input control means that encodes an input signal when a projection is depressed. A fingertip can be moved over the input plate with the wrists fixed. The projections are disposed within a surface area outlined by an inverted generally egg-shaped curve C1 or C2, which is usable equally by the index fingertip of either hand.

(21) **Appl. No.: 10/784,761**(22) **Filed: Feb. 23, 2004****Related U.S. Application Data**(63) Continuation of application No. PCT/JP02/08395,
filed on Aug. 20, 2002.